



UNM LEARN

M David Kirby 2 ▼

[Course Home](#) [Module 2](#) **Take Test: Quiz 2.3**

## Take Test: Quiz 2.3

### Test Information

Description

Instructions

Multiple Attempts This test allows multiple attempts.

Force Completion This test can be saved and resumed later.

### QUESTION 1

1 points

Saved

True or false? Laplace transforms can be used to solve differential equations.

- ☒ True  
☐ False

### QUESTION 2

1 points

Saved

True or false? Laplace transforms can be used to find transfer functions.

- ☒ True  
☐ False

### QUESTION 3

1 points

Saved

Consider the dynamical system described by  $\dot{y} = -5y + u$ , with output  $y$  and input  $u$ . Using the Laplace transform, which of the following represents the transfer function?

You may presume all initial conditions are 0.

☒  $\frac{Y(s)}{U(s)} = \frac{1}{s+5}$

☐  $\frac{Y(s)}{U(s)} = \frac{1}{s-5}$

▼ Question Completion Status:

☐  $\frac{Y(s)}{U(s)} = \frac{1}{1+s}$

☐  $\frac{Y(s)}{U(s)} = \frac{5}{s}$

#### QUESTION 4

1 points

Saved

Which of the following transfer functions is NOT in proper form?

☐  $G(s) = \frac{s+1}{s+7}$

☒  $G(s) = \frac{s+3}{2s^2+3s+4}$

☐  $G(s) = \frac{s^2+2}{s^3+2s^5+5s}$

☐  $G(s) = \frac{5s+2}{s^2+s+2}$

Click Save and Submit to save and submit. Click Save All Answers to save all answers.

Save All Answers

Save and Submit

